PG/IIS/ECO/203/25

M.A./M.Sc. 2nd Semester Examination, 2025

ECONOMICS

(*Environmental and Resource Economics*)

PAPER – ECO-203

Full Marks : 50

Time : 2 hours

Answer **all** questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

GROUP—A

Answer any **two** questions from the following : 2×2

1. How does the first law of thermodynamics relate to environmental economics ? Explain.

2. How can non-convexity lead to market failure in the case of environmental goods ?

3. What is the Travel Cost Method for valuing environmental goods ?

4. What is SEEA central framework ?

Answer any **two** questions from the following : 4×2

5. Describe the relationship between the economy and the environment by emphasizing the main factors that illustrate their mutual inter-dependence.

6. Critically explain the Coase Theorem in the context of environmental economics and its role in addressing externalities.

7. Explain any four theoretical approaches to sustainable development.

8. Write a note on Environmental Kuznets Curve (EKC).

Answer any **one** question from the following : 8×1

9. Explain the different steps involved in Contingent Valuation Method.

10. Differentiate between Command-and-Control (CAC) and Market-Based Instruments (MBI). Why are MBIs generally considered more effective than CAC measures ? $2 + 6$

GROUP–B

Answer any **two** questions from the following : 2×2

11. Write any one assumption (or caveat) related to the management of the renewable resources.

12. Define preservation value.

13. What is royalty ?

14. What is backstop technology ?

Answer any **two** questions : 4×2

15. Discuss the concept and usefulness of MSY. Explain how the inclusion of the preservation value change the equilibrium of the use of renewable resources.

16. Distinguish between common property and open access solutions. Does open access necessarily imply extinction of the resources ?

17. Discuss what happens to the Hotelling Rule when extraction costs are positive ?

18. Discuss how the resource price of an exhaustible resource changes with the introduction of the backstop technology.

Answer any **one** question : 8×1

19. Examine how fluctuations in the demand for exhaustible resources result in alterations to the price trajectory of the resource. If the market for the exhaustible resource is a monopoly, does it increase the extraction of the resource ? Clarify. $4 + 4$

20. Discuss graphically how the initial price, P_0, is determined in the Hotelling Rule for an exhaustible resource. Discuss how the Hotelling rule for an exhaustible resource changes with the change in the discount rate(s). $5 + 3$

[Internal Assessment — 10 Marks]